

Title: FULLY IMPLANTABLE NERVE SIGNAL SENSING . . .
Inventors: M.D. Baru Fassio et al.
Docket No.: NEUR122612

U.S. Patent Application No. 10/817,158 Replacement Drawings

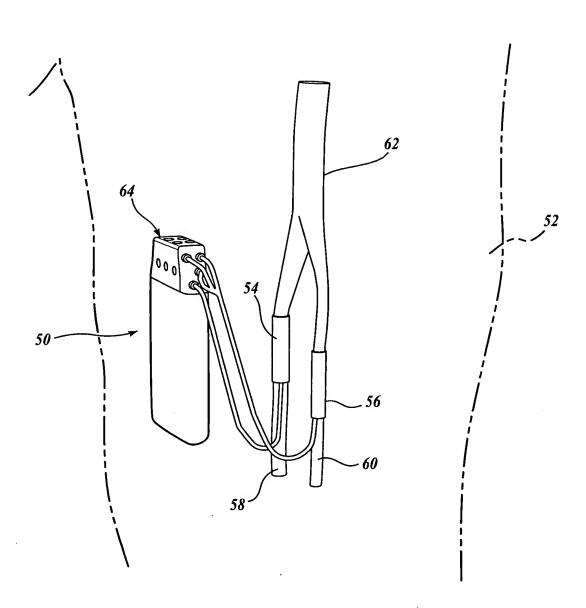


Fig.1A.

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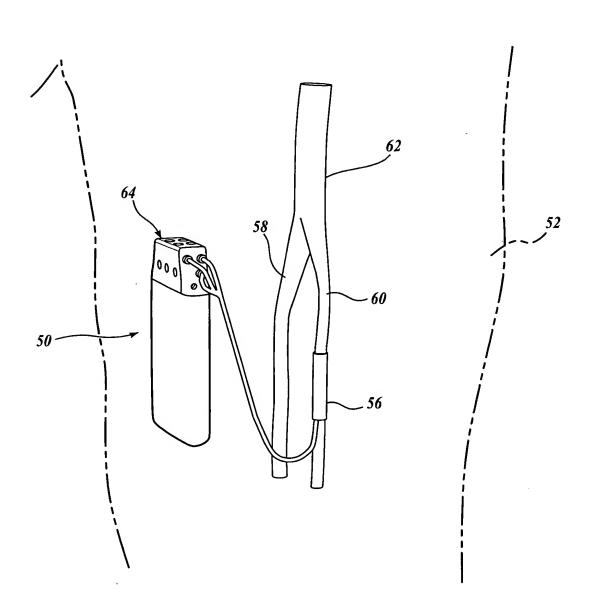
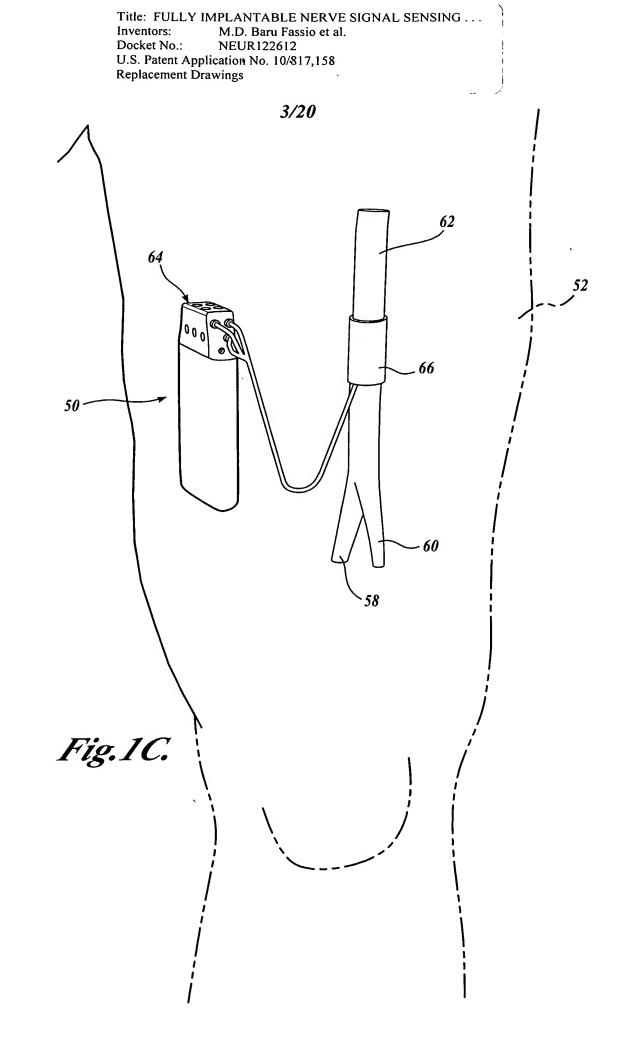
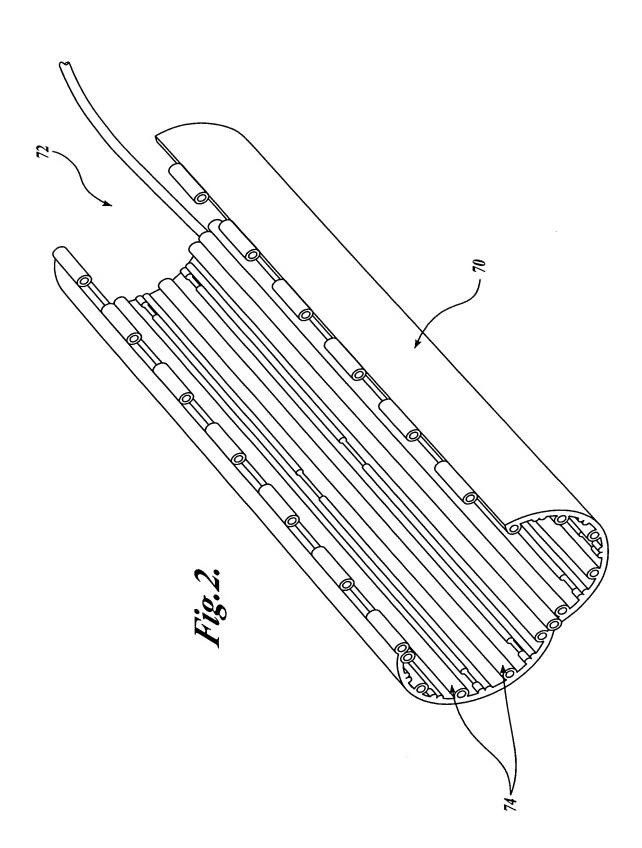


Fig.1B.

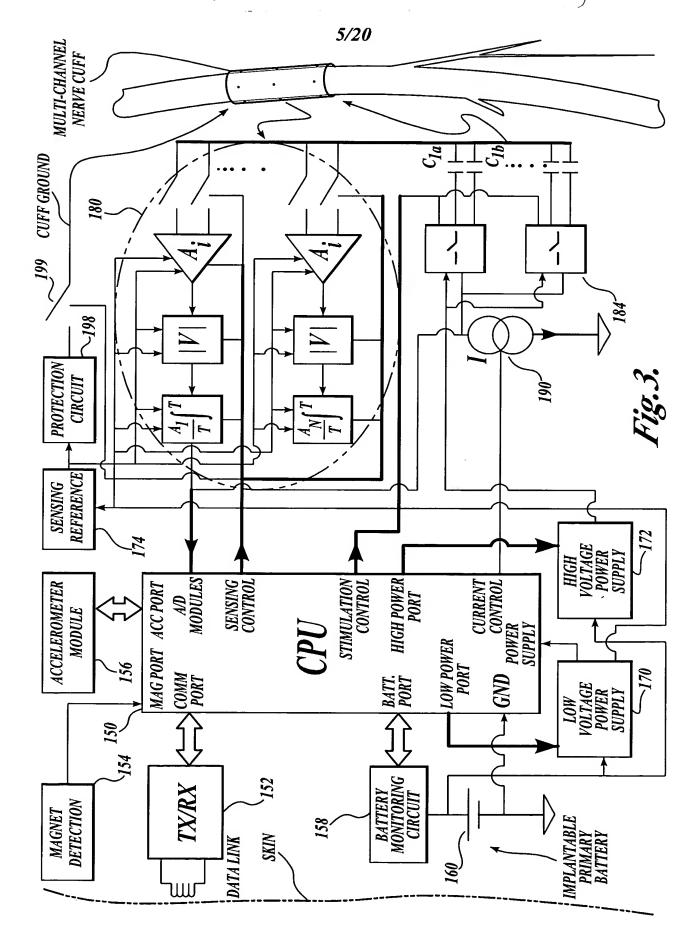


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M.D. Baru Fassio et al. Inventors: Docket No.: NEUR122612 U.S. Patent Application No. 10/817,158 Replacement Drawings 6/20 MULTI-CHANNEL Nerve cuff CUFF GROUND *1*66 %I7 PROTECTION CIRCUIT REFERENCE SENSING **ACCELEROMETER** MODULE CURRENT POWER CONTROL SUPPLY AD MODULES SENSING STIMULATION HIGH POWER PORT ACC PORT LOW POWER Port MAGPORT 156 LOW VOLTAGE POWER SUPPLY DATALINI BATTERY Monitoring Circuit MAGNET NIIS SEL $\overline{\mathbb{M}}$ 230 210 MONET AC POWER SUPPLY ر220 PROGRAMMER EXTERNAL 226 INTERFACE

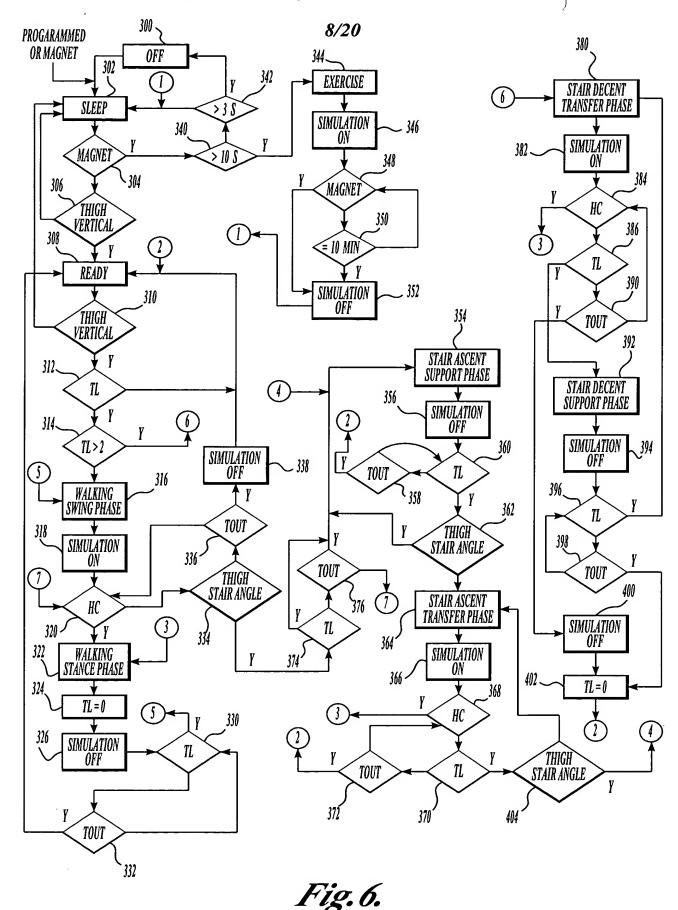
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Title: FULLY IMPLANTABLE NERVE SIGNAL SENSING . . . M.D. Baru Fassio et al. Inventors: NEUR122612 Docket No.: U.S. Patent Application No. 10/817,158 Replacement Drawings 7/20 MULTI-CHANNEL Nerve cuff CUFF GROUND 661 %I7 PROTECTION CIRCUIT SENSING REFERENCE CURRENT POWER CONTROL SUPPLY **ACCELEROMETER** MODULE SENSING STIMULATION CONTROL HIGH POWER Port ACC PORT TEMP. PORT LOW POWER Port MAG PORT 156 252 256 IMPLANTABLE Primary Battery BATTERY MANAGEMENT CIRCUIT SENSOR. 258 259 MM RF ENERGY TX MODULE 260 262 264 RECHARGEABLE Battery Pack EXTERNAL PROGRAMMER EXTERNAL CHARGER INTERFACE USER

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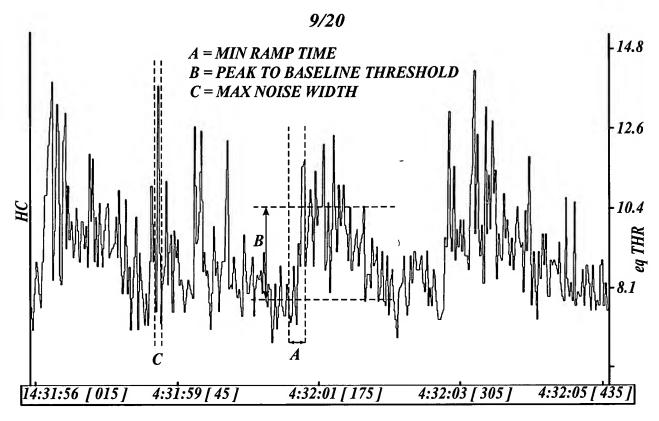


Fig. 7A.

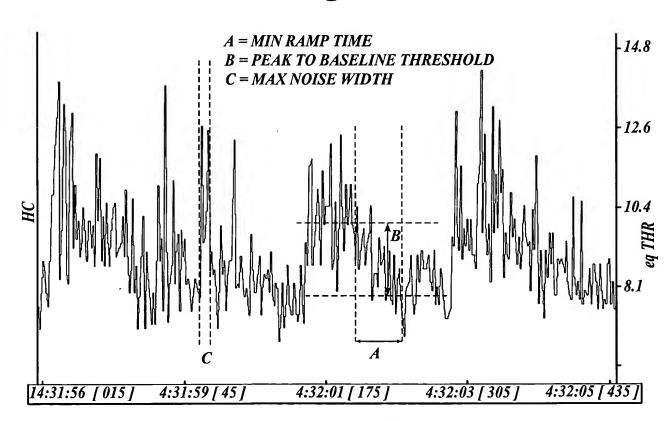
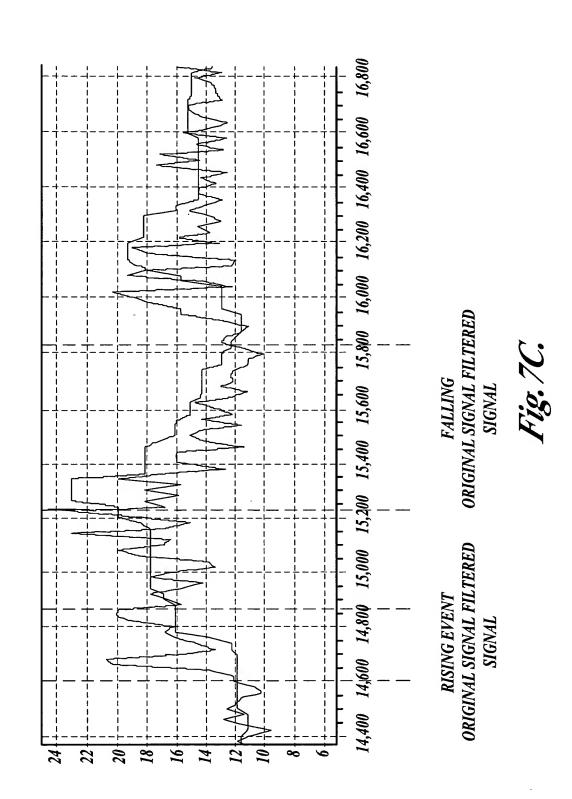


Fig. 7B.

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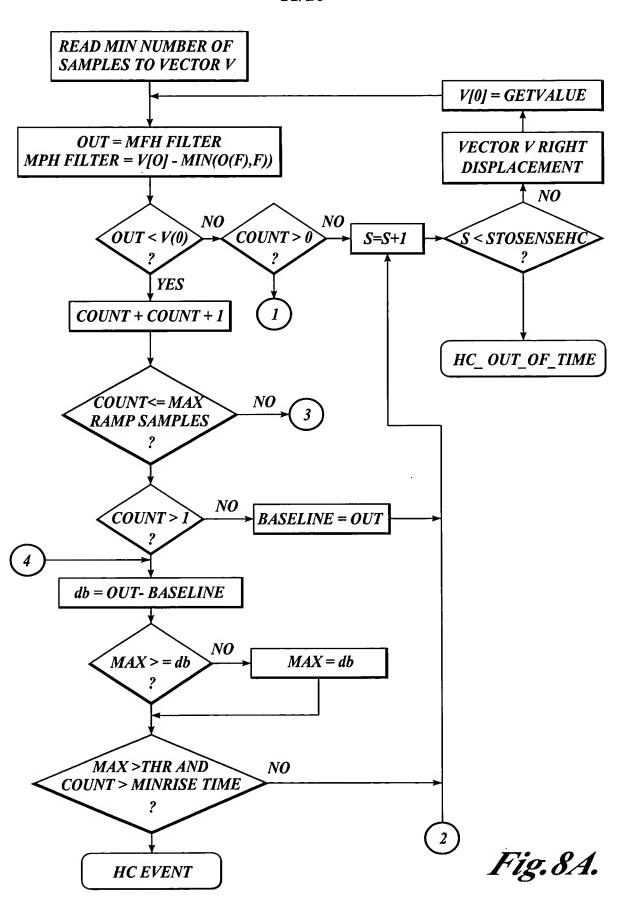


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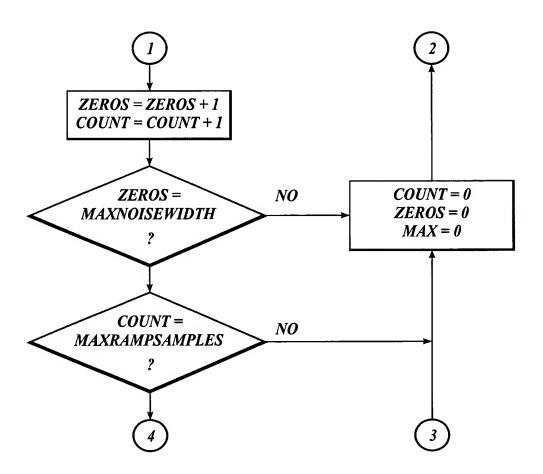


Fig.8B.

Replacement Drawings 13/20 READ MIN NUMBER OF SAMPLES TO VECTOR V V[0] = GETVALUEOUT = MFH FILTER**VECTOR V RIGHT** $MPH\ FILTER = MAX(O(C(F),F)) - V[0]$ **DISPLACEMENT NO** *NO NO* S < STOSENSETL OUT < V(0)COUNT > 0S=S+1YES COUNT = COUNT + 1TL_OUT_OF_TIME COUNT<= MAX RAMP SAMPLES COUNT > 1 BASELINE = OUT4 db = BASELINE - OUTdb > THR AND**NO COUNT > MINFALLTIME** TL EVENT

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Fig.9A.

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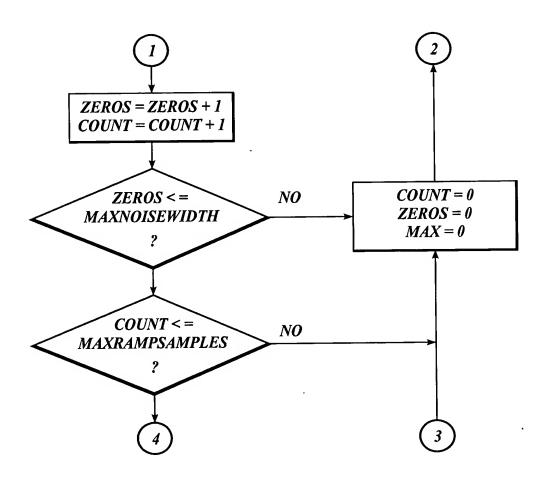


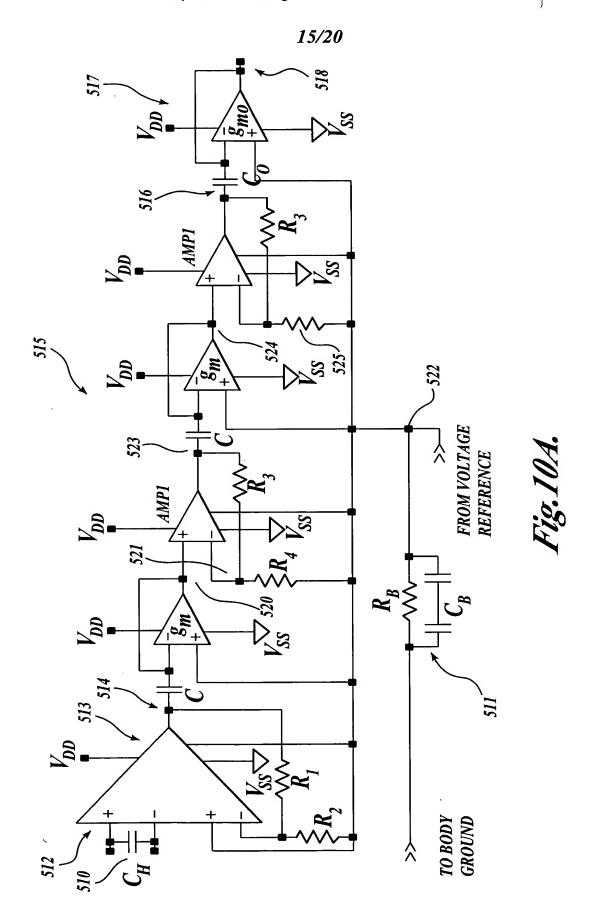
Fig.9B.

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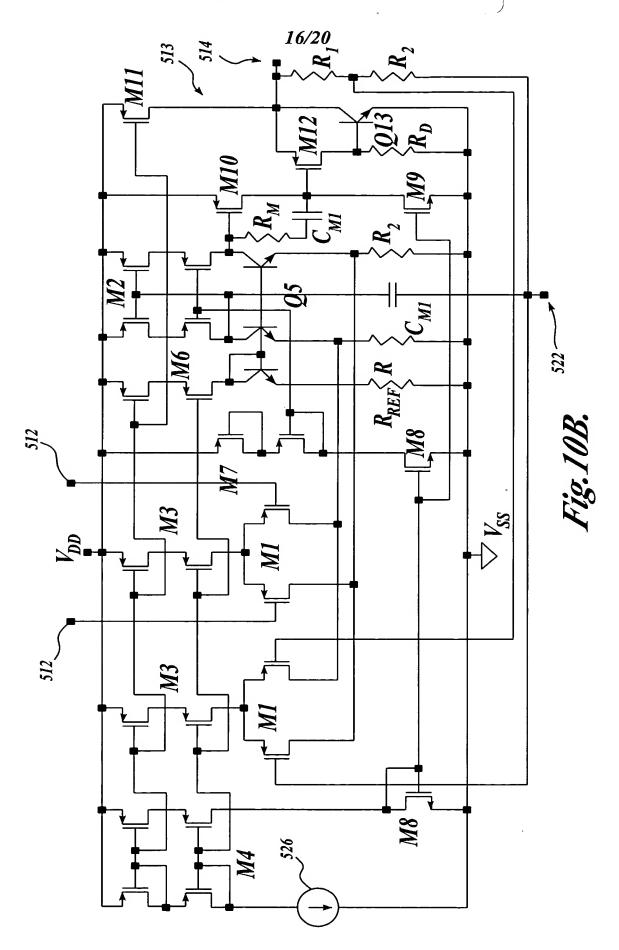
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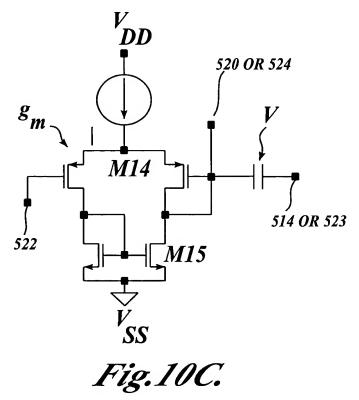


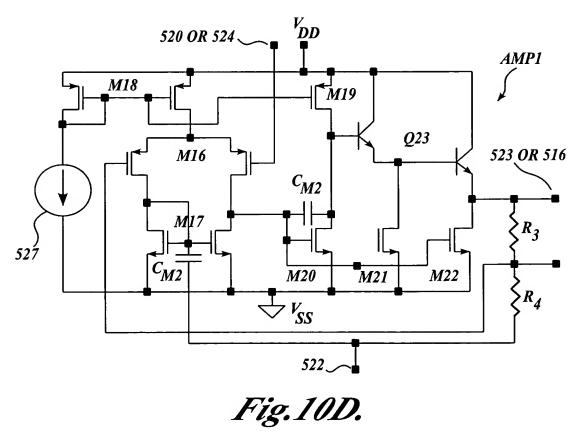
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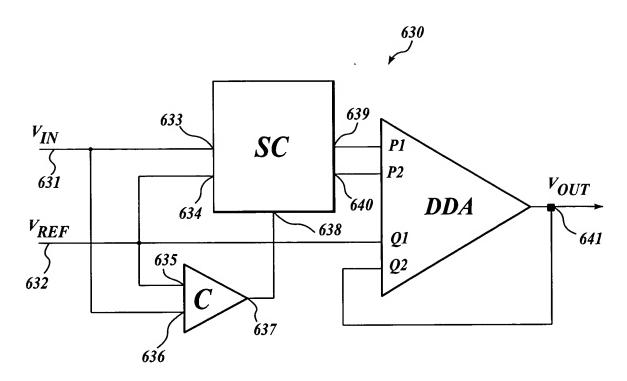


Fig.11A.

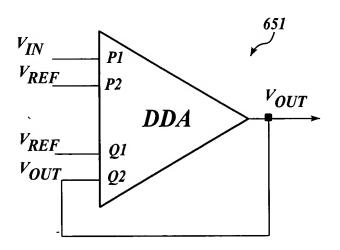


Fig.11B.

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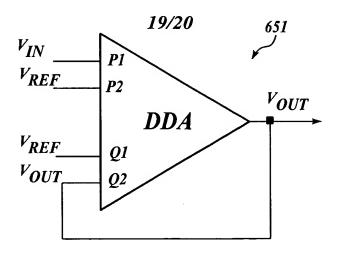


Fig.11C.

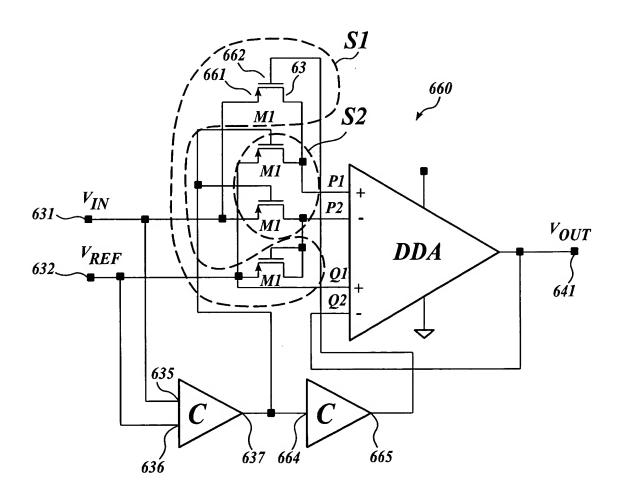


Fig.11D.

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